examples of its application. It was an original, independently developed, method, called the cumulative environmental expenditures method, based generally on the principle that the loads of environment, connected with the manufacturing, use and liquidation of these objects, depend on the relations between parameters of resource extraction from or waste disposal to the environment and the characteristics of environmental resource in given categories. Several ideas, assumptions and structures were similar to those developed at the beginning of the 90'-ties with the well known UBP-method and in works produced at the CML.

Further activities of our small group (in 1995, Grzegorz Laskowski and in 1996, Przemyslaw Kurczewski joined me) have concentrated on the LCA of technical objects: Food-processing machines, compressors, water meters, etc. Recently, one more general study on the choice of transportation for Polish conditions has been performed. Since 1995, we have participated in SETAC activities: Annual meetings, case studies symposia and working groups workshops, as well as in the LCANET and CHAINET activities, with some contributions. In the LCA area, no more persons from the CEECs have been noticed. Also on a national level, at conferences and in contacts with economy, especially with the industry, we try to disseminate the knowledge about LCA, although with very modest successes.

5 Some Concluding Remarks

Development of science is generally driven from two sources: The interests of scientists and economy are supported by money. In our individual and national cases the first reason is obvious and the second one still does not exist. We hope that the progress in introducing LCAs to the practice will be driven through a greater popularity of the ISO 14000 standards and forced by the advances in ISO 14040 series.
We have seen how the popularity of ISO 9000 standards has caused the increasing interest for implementation of the Total Quality Management in Polish companies. Probably the same mechanism will arise regarding LCA. Another stimulating factor will also be the accession process of Poland to European Union structures.

Processes described above are on different levels in the various CEECs. One can distinguish several groups of them:

a) The countries with most advanced changes, such as the Czech Republic, Hungary, Poland and Slovenia,
b) less developed countries such as Croatia, Estonia, Latvia, Lithuania and Slovakia,
c) the other CEEC.

One can forecast that processes which are now in development in countries belonging to group A will appear further in B and later on in the countries of group C. In this paper, I concentrated on the situation in Poland. Generally, it is more or less similar to the situation in countries which belong to group A.

6 References

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Conference Announcements

Tribology in Environmental Design 2000 – The Characteristics of Interacting Surfaces

A Key Factor in Sustainable and Economic Products

First International Conference, 3 – 6 September 2000, Bournemouth, United Kingdom

This international event is organised by the Tribology Design Research Unit within the School of Design, Engineering and Computing, Bournemouth University. It is also co-sponsored by the Institution of Mechanical Engineers (IMechE) and supported by the Institution of Engineering Designers (IED) both of the United Kingdom.

The scope of the conference is to project as well as environmentally assess tribological properties within technological products. The objective is to assist the designer to predict the life cycle consequences of these properties early in the product design phase. The choice of materials between interacting surfaces in relative motion together with the type of lubricant used are key in the product's life cycle, particularly in the use phase. The study of wear and the ensuing heat of friction have direct as well as indirect environmental consequences. These environmental costs incurred during a product's use are committed by early design decisions. Known engineering domains, such as tribology, need to be integrated with the perhaps more traditional design issues in an attempt to address key aspects in holistic life cycle design.

The conference seeks to discuss papers on topics related to

- Life-oriented products
- Product life design tools
- Energy studies in product use phase
- Surface quality
- Surface engineering
- Advanced materials
- Sustainable product development
- Life cycle assessment for optimised products
- Environmental impact assessment
- Lubricants
- Analytical studies

as well as other topics which fall within the scope of the conference.

It is the purpose of this conference to draw together expertise from academia and industry alike to discuss existing ideas as well as new research on the multi-disciplinary fields highlighted above. In the event that you may require further information or consider yourself suitable to contribute or participate in this event, please do not hesitate to visit our website on www.designforlifecycle.org/ted2000. Further information may also be obtained by email on ted_info@bournemouth.ac.uk.